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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,394	10/11/2002	Paul Bryan Cadima	9D-RG-19957	2787
23465	7590	12/08/2003	EXAMINER	
JOHN S. BEULICK C/O ARMSTRONG TEASDALE, LLP ONE METROPOLITAN SQUARE SUITE 2600 ST LOUIS, MO 63102-2740			ODLAND, KATHRYN P	
			ART UNIT	PAPER NUMBER
			3743	

DATE MAILED: 12/08/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,394

Applicant(s)

CADIMA, PAUL BRYAN

Examiner

Kathryn Odland

Art Unit

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

This is a response to the amendment dated, November 10, 2003. Claims 1-26 are pending.

Response to Arguments

1. Applicant's arguments filed November 10, 2003 have been fully considered but they are not persuasive.

Applicant's arguments have been carefully considered and seem to be directed to restating the claims rather than explaining or demonstrating how the rejection defines over the claimed invention. The rejection dated June 17, 2003 addressed every limitation of the claims and provided an Appendix for clarification. Thus, this complete rejection did explain how the limitations of the claim corresponded to the art applied. Applicant amended claim 1 to include the limitation, "at least one support finger extending from at least one of said exterior frame element and interior frame element." However, as shown in the Appendix, Karapetian discloses, at least one support finger (shown in red in the Appendix) extending from at least one of said exterior frame element (shown in green in the Appendix) and interior frame element. Further, applicant initially argues, "The Examiner's assertion that the interior frame elements (18/20) of Karapetian are support fingers is respectfully traversed because elements 18 and 20 do not have an unattached end, and are, therefore, not fingers." However, it is not a claim limitation that the fingers be unattached at an end. Thus, given a reasonably broad interpretation of finger, the protruding portions shown in red and

labeled as such in the Appendix can be considered fingers. Applicant then argues, that the rejection of claim 13 is based upon hindsight reasoning. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). It is extremely well known in the burner art to have grate assemblies surround gas burners. Further, it is extremely well known to have a cook top with four burners. Thus, it would be obvious to one with ordinary skill in the art at the time the invention was made to modify the invention for use with four burners where the recessed portions would be located accordingly to that well known in the art for the purpose of proper air distribution. Moreover, it is again reiterated that an unattached finger is not a limitation of the claim and given a reasonably broad interpretation of the claim, the claim does not define over the prior art rejection and it is asserted that the prior art does not teach away from the claimed invention. The rejection based on Karapetian is reiterated below and the corresponding components are shown in the Appendix previously provided. The exterior elements, interior elements, fingers, bridge spacer, recessed portions, etc. are labeled.

Applicant then argues the rejection under 35 U.S.C. 103 over Sparks in view of Williams et al. Applicant then argues, that the rejection is based upon hindsight

reasoning. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). However, as reiterated, Williams et al. teach the clearance gaps for even heated air distribution analogous and not unlike applicant's invention and the combination does not teach away from the invention. Williams et al. teach cooking in lines 10-15 and it is a well-known objective of cooking grates to seek even heat distribution for proper heating and cooking. Thus, it would be obvious to one with ordinary skill in the art to modify the cooking grate of Sparks to include gaps for the purpose of proper flame and heat distribution. Thus, applicant has failed to include claim language to define over the prior art of record.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Karapetian in US Patent No. 3,717,083.

A labeled figure has been provided in an Appendix.

With regard to claims 1-5, Karapetian discloses a cooking grate (shown generally at 10) having a frame with an exterior frame element (11); at least one interior frame element (18/20 as labeled in the Appendix) having a cooking utensil supporting surface elevated from the exterior frame element, as seen in figure 3; at least one recessed surface (22) extending from the cooking utensil supporting surface where a top of the recessed surface is separated from the top of the cooking utensil supporting surface, thereby providing a gap for passage of a burner flame, as recited in column 3, lines 1-31 and seen in figure 3; a grate having a first interior element (18/20 as labeled in the Appendix) and a second interior element (also 18/20 as labeled in the Appendix) where each of the first interior element and second interior element have a recessed surface, as seen in figures 1 and 3; a plurality of support fingers (18/20 as labeled in the Appendix) extending from the interior frame element and exterior frame element; support fingers that are elliptical arcs, as seen in figure 3 (the undulations – no point of reference/plane had been established to define the elliptical arcs or the manner in which they extend); a cooking grate that is substantially rectangular, as seen in figure 1; and at least one support finger extending from at least one of said exterior frame element and interior frame element, as shown in the Appendix.

Regarding claims 6-10, Karapetian discloses a grate assembly for a cooking appliance having at least one exterior frame element (11); at least one support finger (18/20 as shown in the Appendix) extending from the exterior

frame where the support finger has a top surface extending above at least one exterior frame element, as seen in figure 3; at least one interior frame element (18/20 as shown in the Appendix) having a top surface extending above the exterior frame element, as shown in figure 3; a top surface of the interior frame element that is substantially coplanar with the top surface of the support finger, as seen in figures 1 and 3; at least one recessed surface (22) extending from the top surface of the interior frame element; the recessed surface defining a clearance for passage of a burner flame, as seen in figure 3; a first grate section (labeled in the Appendix); a second grate section (labeled in the Appendix); and a bridge spacer section (at 14 as labeled in the Appendix); at least one of the first grate section and second grate section that has a cross member frame (as labeled in the Appendix) element substantially dividing the grate section; the at least one recessed surface located in the cross member frame element, as seen in figure 1; at least one interior frame element that has a first recessed surface and a second recessed surface (22 as seen in the Appendix); and a grate assembly that is substantially rectangular, as seen in figure 1.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karapetian in US Patent No. 3,717,083.

With regard to claims 11-16, Karapetian discloses a grate assembly for a gas cook top having at least one grate section having a substantially rectangular frame having at least one exterior frame element (11) with a top surface, as shown in figure 1; at least one interior frame element (18/20 as labeled in the Appendix) with a top surface; a cross member (as labeled in the Appendix) frame element with a top surface where the cross member frame element extends between the exterior frame element and the interior frame element, as shown in figure 1; top surfaces of the interior cross member frame element and interior frame element that are substantially coplanar and elevated relative to a top surface of the exterior frame element, as shown generally in figure 3; at least one of the cross member frame element and interior frame element has a recessed surface (22) extending from the coplanar surface, where the recessed surface has a flame clearance gap, as seen in figure 3; a recessed surface that is approximately centered in the cross member frame element, as seen in figure 3; at least one support finger extending from the frame, the support finger (labeled in the Appendix) extending in an elliptical arc, as seen in figures 1 and 3; a bridge spacer (as labeled in the Appendix) having a top surface coplanar with the top surface of the interior frame element and at least one recessed portion extending from the top surface of the bridge spacer section, as seen in figures 1 and 3; and a recessed surface that is concave, as seen in figure 3.

Regarding claims 17-20, Karapetian discloses a grate assembly having an interior frame element (18/20 as labeled in the Appendix) extending between the; an interior frame element having a cooking utensil surface and a flame clearance recessed portion (22) extending from the cooking utensil surface, as seen in figures 1 and 3; the grate assembly having a first grate section, a second grate section, and a bridge spacer (as seen in the Appendix) there between; an interior cross member frame element (shown in the Appendix), and a recessed portion(22) substantially centered in the cross member frame element, as seen in figures 1 and 3.

With regard to claims 22-26, Karapetian discloses a first grate section (as labeled in the Appendix); a second grate section (as labeled in the Appendix); a bridge spacer section (shown in the Appendix) extending between the first grate section and second grate section; a top surface of each of the first grate section, second grate section, and bridge spacer having a substantially coplanar utensil supporting surface, as seen in figures 1 and 3; a recessed portion (22) extending from the utensil supporting surface; a recessed surface portion (22) that is substantially centered, as seen in figure 3; and at least one of the first and second grate sections that is substantially rectangular, as seen in figure 1.

However, Karapetian does not explicitly recite gas burners where the grate assembly surrounds the gas burners; a cook top with four burners; an interior frame element that has a first recessed portion and a second recessed portion, where the first recessed portion and second recessed portion are located

on opposite sides of the cross member; or a cross member frame element extending between the exterior frame element and intersecting the interior frame element. On the other hand, it would be obvious to one with ordinary skill in the art to apply the device on a gas burner system with a cook top with either two or four burners. Further, the recessed portions although occurring on separate interior frame elements are separated by the cross member and therefore provide the same function. Moreover, a cross member frame element extending between the exterior frame element and intersecting the interior frame element is also within the scope of the invention, for although the cross member and interior member are separated by a divide, it would be obvious to one with ordinary skill in the art to have them intersect for the purpose of proper flame and heat circulation. Further, the specification of the current application does not demonstrate the criticality for the intersection.

6. Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sparks in Des. 378,885 in view of Williams et al. in US Patent No. 925,255.

**See the labeled figure for Sparks provided in the office action dated
March 6, 2003.**

Sparks discloses a cooking grate (shown generally in figure 2) having a frame with an exterior frame element (shown in green in the Appendix); at least one interior frame element (shown in yellow in the Appendix) having a cooking utensil supporting surface (shown by dashed blue or pink lines in the Appendix) elevated from the exterior frame element, as seen in figure 3; a grate having a

first interior element (labeled in the Appendix) and a second interior element (labeled in the Appendix), as seen in figures 2 and 3; a plurality of support fingers (shown in red in the Appendix) extending from the interior frame element and exterior frame element; a cooking grate that is substantially rectangular, as seen in figure 2; a grate assembly for a cooking appliance having at least one exterior frame element (shown in green in the Appendix); at least one support finger (shown in red in the Appendix) extending from the frame where the support finger has a top surface extending above at least one exterior frame element, as seen in figure 3; at least one interior frame element (shown in yellow in the Appendix) having a top surface extending above the exterior frame element, as shown in figure 3; a top surface of the interior frame element that is substantially coplanar with the top surface of the support finger, as seen in the figures; a first grate section (labeled in the Appendix); a second grate section (labeled in the Appendix); and a bridge spacer section (labeled in the Appendix); at least one of the first grate section and second grate section that has a cross member frame (shown in blue dashed lines in the Appendix) element substantially dividing the grate section; a grate assembly that is substantially rectangular, as seen in figure 2; a grate assembly for a gas cook top having at least one grate section having a substantially rectangular frame having at least one exterior frame element with a top surface, as shown in figure 1; at least one interior frame element (shown in green in the Appendix) with a top surface; a cross member (shown in blue dashed lines in the Appendix) frame element with a top surface where the cross

member frame element extends between the exterior frame element and the interior frame element, as shown in figure 2; top surfaces of the interior cross member frame element and interior frame element that are substantially coplanar and elevated relative to a top surface of the exterior frame element, as shown generally in figure 3; a bridge spacer (shown in dashed pink lines in the Appendix) having a top surface coplanar with the top surface of the interior frame element, as seen in figure 2; a gas fired cook top having at least a first gas burner and a second gas burner, as shown in figure 1; a grate assembly surrounding the first gas burner and a second burner, as shown in figure 1; the grate assembly having an interior frame element (shown in yellow in the Appendix) extending between the first gas burner and second gas burner; an interior frame element having a cooking utensil surface (shown in dashed blue lines in the Appendix); a grate assembly having a rectangular grate section surrounding the first burner and second burner, as seen in figure 1; a cook top with four burners, as seen in figure 1; the grate assembly having a first grate section, a second grate section, and a bridge spacer (shown in dashed pink lines in the Appendix) there between; an interior cross member frame element (shown in dashed blue lines in the Appendix); a gas fired cook top having a first gas burner and an adjacent second gas burner, as seen in figure 1; a first grate section surrounding the first and second gas burners; a third gas burner and an adjacent fourth gas burner; third and fourth gas burners that are adjacent the first and second gas burners; a second grate section surrounding the third and fourth

gas burners; a bridge spacer section (shown in dashed pink lines in the Appendix) extending between the first grate section and second grate section; a top surface of each of the first grate section, second grate section, and bridge spacer (shown in blue dashed lines in the Appendix) having a substantially coplanar utensil supporting surface; at least one of the first and second grate sections that is substantially rectangular, as seen in figure 2; at least one finger support extending from at least one of the exterior frame element and interior frame element, as shown in the Appendix; as well as a cross member frame element that extends between the exterior frame element and intersects the interior frame element, as shown in the Appendix.

However Sparks does not recite of support fingers that are elliptical arcs; a recessed portion that is concave; at least one recessed surface extending from the cooking utensil supporting surface where a top of the recessed surface is separated from the top of the cooking utensil supporting surface, thereby providing a gap for passage of a burner flame; first and second interior elements where each of the first interior element and second interior element have recessed surfaces; at least one recessed surface extending from the top surface of the interior frame element, the recessed surface defining a clearance for passage of a burner flame; at least one recessed surface located in the cross member frame element; at least one interior frame element that has a first recessed surface and a second recessed surface; at least one of the cross member frame element and interior frame element having a recessed surface

extending from the coplanar surface, where the recessed surface has a flame clearance gap; a recessed surface that is approximately centered in the cross member frame element; at least one recessed portion extending from the top surface of the bridge spacer section; a recessed portion extending from the utensil supporting surface between each adjacent gas burner; and a recessed surface portion that is substantially centered between each adjacent burner in the first and second grate section.

On the other hand, Williams et al. teach a recess surface for even heated air distribution, as recited in lines 84-91 and seen in figures 1-5. Therefore, it would be obvious to one with ordinary skill in the art to provide the system of Sparks with recesses as taught by Williams et al. for the purpose of even distribution of heated air and clearance passages for burner flames. This combination would then yield a recessed portion that is concave; at least one recessed surface extending from the cooking utensil supporting surface where a top of the recessed surface is separated from the top of the cooking utensil supporting surface, thereby providing a gap for passage of a burner flame; first and second interior elements where each of the first interior element and second interior element have recessed surfaces; at least one recessed surface extending from the top surface of the interior frame element, the recessed surface defining a clearance for passage of a burner flame; at least one recessed surface located in the cross member frame element; at least one interior frame element that has a first recessed surface and a second recessed surface; at least one of the cross

member frame element and interior frame element that has a recessed surface extending from the coplanar surface, where the recessed surface has a flame clearance gap; a recessed surface that is approximately centered in the cross member frame element; at least one recessed portion extending from the top surface of the bridge spacer section; a recessed portion extending from the utensil supporting surface between each adjacent gas burner; and a recessed surface portion that is substantially centered between each adjacent burner in the first and second grate section.

Moreover, it would be obvious to one with ordinary skill in the art at the time the invention was made to have the support fingers be elliptical arc, for the cut-out sections of Spark provide the same function of allowing air movement and the shape of elliptical arcs can be considered a matter of design choice. Applicant's attention is drawn to section [0022] of the current specification where it states, "As illustrated in Figure 2, each support finger 66 is curved and extends inward to a center of each half of frame 56 in the form of an elliptical arc, providing a spider-like appearance to each half of frame 56. It is recognized, however, that a wide variety of finger shapes could likewise be used in alternative embodiments of the invention." Therefore, no criticality has been established for the elliptical shape. Additionally, applicant's attention is also drawn to section [0024] of the current specification where it states, "Additionally, and as illustrated in Figure 2, support members, 74 are oppositely curved and extend between longitudinal frame elements 70 in an elliptical arc. It is

contemplated, however, that greater or fewer numbers of support members 74, and further that other shapes of support members 74 and frame elements 68, 70, 72 may be employed in alternative embodiments of the invention while achieving the benefits of the instant invention." Therefore, no criticality has been established.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathryn Odland whose telephone number is (703) 306-3454. The examiner can normally be reached on M-F (7:30-5:00) First Friday Off.

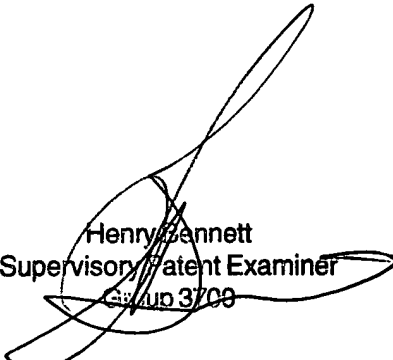
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry A Bennett can be reached on (703) 308-0101. The fax phone

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number for the organization where this application or proceeding is assigned is (703) 872-9302.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

KO



Henry Bennett
Supervisory Patent Examiner
Group 3700